

## ATTACHMENT E – Shale Gas Players and Progress by July 2014

Bidding Round / Pilot Project	Company	Type	Area (km <sup>2</sup> )	Block Location	Partnership	Wells drilled	Progress	Source/News
1	Sinopec	NOC	N/A	Fuling Block, Chongqing	FTS International	62	2015 expected production of 5 BCM/Y	<a href="http://www.reuters.com/article/2014/06/10/us-fts-jv-idUSKBN0EL1KY20140610">http://www.reuters.com/article/2014/06/10/us-fts-jv-idUSKBN0EL1KY20140610</a>
					Chong Qing Government			<a href="http://news.xinhuanet.com/zyd/energy/20140709/c_1111536373.htm">http://news.xinhuanet.com/zyd/energy/20140709/c_1111536373.htm</a>
1	Henan Coalbed Gas Company	Local SOE	2038.87	Xiushan, Chongqing	林州重机 (Linzhou Heavy Machinery)	6	8-9 wells completed by 2014	<a href="http://ggjd.cnstock.com/company/scp_ggid/tjd_ggkx/201407/3087348.htm">http://ggjd.cnstock.com/company/scp_ggid/tjd_ggkx/201407/3087348.htm</a>
2	Huadian Coal Industry Group Co.	SOE	1204.53	Suiyang Block, Guizhou	山东省煤田地质规划勘察研究院 (Shandong Provincial Research Institute of Coal Geology Planning and Exploration)	N/A	Complete shale gas field geological investigation report and overall project design	<a href="http://paper.people.com.cn/zgnyb/html/2013-09/09/content_1296049.htm">http://paper.people.com.cn/zgnyb/html/2013-09/09/content_1296049.htm</a> <a href="http://www.sicgee.com/contents/5/1063.html">http://www.sicgee.com/contents/5/1063.html</a>
2	China Coal Geological Engineering Co.	SOE	1053.37	Fenggang #1 Block, Guizhou	成城股份 (Jilin Cheng Cheng Group Co)	N/A	N/A	<a href="http://q.stock.sohu.com/cn,gg,600247,1631854637.shtml">http://q.stock.sohu.com/cn,gg,600247,1631854637.shtml</a>
				Sangzhi Block, Hunan		N/A	465 investment to be made in 2013-2015	
2	Huaying Shanxi Energy Investment Co.	Private	1030.4	Fenggang #2 Block, Guizhou	江苏长江地质勘查院 (Jiangsu Yangtze River Geological Exploration Institute)	1	Parameter well drilled in Dec, 2013	<a href="http://stock.sohu.com/20130108/n362830500.shtml">http://stock.sohu.com/20130108/n362830500.shtml</a>
2	Titangas Co.	Private	1167.49	Fenggang #3 Block, Guizhou	中石油集团东方地球物理公司 (BGP Inc, CNPC)	N/A	2D dimensional seismic survey completed	<a href="http://finance.sina.com.cn/chanjing/cyxw/20140317/025518523131.shtml">http://finance.sina.com.cn/chanjing/cyxw/20140317/025518523131.shtml</a>
2	Tongren Energy Investment Co.	Local SOE	914.63	Cenggong Block, Guizhou	中国国储能源化工集团 (China Energy Reserve and Chemicals Group)	1	First well drilled in Dec, 2013	<a href="http://finance.gog.com.cn/system/2012/04/27/011429892.shtml">http://finance.gog.com.cn/system/2012/04/27/011429892.shtml</a>

2	Chongqing Energy Investment Co.	Local SOE	1272.4	Qianjiang Block, Chongqing	US Natural Resources Group (PSC)	2	1.7 billion RMB investment deal made in Jan, 2014	<a href="http://shalegas.cleantechpoland.com/?page=edition&amp;id=10&amp;id_article=46">http://shalegas.cleantechpoland.com/?page=edition&amp;id=10&amp;id_article=46</a>
2	Chongqing Mineral Resources Development Co.	Local SOE (JV)	1002.09	Youyang East Block, Chongqing	(Co-founded by Chongqing Energy, Chongqing Institute Geology and Mineral Resources) - Partnered with China Huaneng Group	N/A	3-5 wells expected to be drilled in 2014	<a href="http://changceinstitute.org/first-domestic-equity-transaction-on-shale-gas-signed/">http://changceinstitute.org/first-domestic-equity-transaction-on-shale-gas-signed/</a>
2	State Development and Investment Corporation	SOE	1020.95	Chengkou Block, Chongqing	The Chongqing Administration of Land, Resources and Housing (CALRH), CNPC, State Development & Investment Corporation (SDIC) and Sinochem Co signed a letter of intent on May 8, 2014	1	First well drilled in Nov, 2013	<a href="http://www.wantchinatimes.com/news-subclass-cnt.aspx?id=20140515000089&amp;cid=1206">http://www.wantchinatimes.com/news-subclass-cnt.aspx?id=20140515000089&amp;cid=1206</a>
2	Hunan Huasheng energy investment and Development Co.	Local SOE (JV)	878	Longshan Block, Hunan	Joint Venture formed by Valin Group, Xiangmei Group, and Hunan Development Group	N/A	First well drilled in Jun, 2014	<a href="http://xnyqt.cnpc.com.cn/News/xnyqt/sylm/tydt/201407/20140703_C604.shtml?COLLCC=3063107176&amp;">http://xnyqt.cnpc.com.cn/News/xnyqt/sylm/tydt/201407/20140703_C604.shtml?COLLCC=3063107176&amp;</a>
2	Shenhua geological exploration Co.	SOE	1189.72	Baojing Block, Hunan	Strategic Partnership agreement signed with Honghua in February 2013	1	First well drilled in Jun, 2014	<a href="http://www.gmw.cn/ny/2013-02/18/content_6721631.htm">http://www.gmw.cn/ny/2013-02/18/content_6721631.htm</a>
2	Chinese Huadian Engineering (Group) Co.	SOE	400.43	Huayuan Block, Hunan	N/A	N/A	159 million RMB investment approved in Mar, 2013	
2	Hunan Province Shale Gas Development Co.	Local SOE (JV)	982.23	Yongshun Block, Hunan	(Co-founded by Huadian & Coal Geology Bureau in Hunan Province)	3	Huadian planed to invest RMB 1.13 billion on Yongshun and Huayuan from 2013 to 2016 Started survey in March, 2013	<a href="http://www.chechne.com/cn/news/110">http://www.chechne.com/cn/news/110</a> <a href="http://www.bchyxw.com/Info/View.Asp?id=11181">http://www.bchyxw.com/Info/View.Asp?id=11181</a> <a href="http://safety.gasshow.com/News_20130320/333737.html">http://safety.gasshow.com/News_20130320/333737.html</a>
2	Huadian Hubei Power Co.	SOE	369.23	Laifeng Xianfeng Block, Hubei	Hubei Provincial Government	N/A	Started survey in July, 2013; and Huadian planned to invest RMB 482 million on the survey work from 2013 to 2016	<a href="http://www.cuog.cn/html/8486.html">http://www.cuog.cn/html/8486.html</a> <a href="http://www.enshi.cn/20130203/ca276477.htm">http://www.enshi.cn/20130203/ca276477.htm</a>

2	Huadian Hubei Power Co.	SOE	2306.71	Hefeng Block, Hubei	Hubei Provincial Government	N/A	Started survey in July, 2013; and Huadian planned to invest RMB 700 million on the survey work from 2013 to 2016	<a href="http://www.cuog.cn/html/8486.html">http://www.cuog.cn/html/8486.html</a>
2	Jiangxi Natural Gas Holdings.	Local SOE	598.28	Xiuwu Block, Jiangxi	Open tender to look for contractor	N/A	Open tender initiated in Jun, 2014	<a href="http://www.csgcn.com.cn/news/show-41690.html">http://www.csgcn.com.cn/news/show-41690.html</a>
2	Anhui Energy Group Co.	Local SOE	580.09	Lin-an Block, Zhejiang	(Co-founded Anhui provincial shale gas development Co.)	N/A	N/A	<a href="http://info.glinfo.com/13/0624/07/27AFA46806F5AFB5.html">http://info.glinfo.com/13/0624/07/27AFA46806F5AFB5.html</a>
2	Henan Yukuang Geological Engineering and Investment Co.	Local SOE	1377.91	Wenxian Block, Henan	(Co-founded by Henan Provincial Bureau of Geo-Exploration & Mineral Development)	N/A	N/A	
			1395.99	Zhongmou Block, Henan		N/A	N/A	
First National Level Pilot Project	Shannxi Yanchang Petroleum Co.	Local SOE			UT Austin	39 (by 2013)	39 wells completed by the end of 2013	<a href="http://www.sxycpc.com/ycinfo.jsp?urltype=news.NewsContentUrl&amp;wbtreeid=1062&amp;wbnewsid=37322">http://www.sxycpc.com/ycinfo.jsp?urltype=news.NewsContentUrl&amp;wbtreeid=1062&amp;wbnewsid=37322</a>
Two National Pilot Projects	CNPC	NOC		Weijin-Changning, and Shao Tong. Both national level pilot areas	Shell (PSC), Conoco Phillips	50 (by 2013)	50 wells completed by the end of 2013	<a href="http://wap.cnpc.com.cn/system/2014/07/14/001497185.shtml">http://wap.cnpc.com.cn/system/2014/07/14/001497185.shtml</a>
Through Application to MOLAR	CNOOC	NOC		Chaohu, Anhui 安徽巢湖	Shell (JV)		First well drilled in March 2013	<a href="http://wap.cnpc.com.cn/system/2014/07/14/001497185.shtml">http://wap.cnpc.com.cn/system/2014/07/14/001497185.shtml</a> <a href="http://www.bloomberg.com/news/2012-01-11/cnooc-starts-its-first-shale-gas-project-in-eastern-china.html">http://www.bloomberg.com/news/2012-01-11/cnooc-starts-its-first-shale-gas-project-in-eastern-china.html</a>